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EXAMINER

CAIN, D

ART UNIT PAPER NUMBER

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DATE MAILED:

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This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☒ Notice of References Cited by Examiner, PTO-892.
- ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☒ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐ _____

Part II SUMMARY OF ACTION

- ☒ Claims 1-60 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
- ☐ Claims _____ have been cancelled.
- ☐ Claims _____ are allowed.
- ☒ Claims 1-3, 5-9, 12, 13, 16, 19-26, 28, 30-32, 34-41, 43-46, 48-50, 52-60 are rejected.
- ☒ Claims 4, 10, 11, 14, 15, 17, 18, 27, 29, 33, 42, 47, 57 are objected to.
- ☐ Claims _____ are subject to restriction or election requirement.
- ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- ☐ Formal drawings are required in response to this Office action.
- ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
- ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
- ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
- ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
- ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
- ☐ Other

EXAMINER'S ACTION

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1. Allowance of the claims is hereby withdrawn.
2. Claims 12, 13, 16, 19, 21, 31, 34-41, 50, 53, 54, 56-60 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, lines 4-5, "the first signal processing circuit" appears incorrect. Parent claim 1 refers to the deciphering step as taking place in the second signal processing circuit.

In claim 13, lines 2-3 "said deciphering algorithm" lacks antecedance. In line 4 it appears "first" should be "second".

In claim 16, lines 1-2, "said enciphering algorithm embedding step" lacks antecedance.

In claim 19, line 6, "said first location identifier" lacks antecedance. In line 7 "said randomly generated number" lacks antecedance. In line 11 "said enciphered value" lacks antecedance.

Claim 21, as rewritten, has omitted the last two lines.

In claim 31 lines 1-2 "said . . . embedding step" lacks antecedance.

Claim 34 does not appear to further limit parent claim 29. Parent claim 29 calls for embedding DES, whereas claim 34 call for "programably selecting the algorithm from F, DES or BONUS."

In claim 35 lines 3-4 "said deciphering algorithm" lacks antecedance.

In claims 36, 37 and 38 lines 1-2 "said deciphering algorithm" lacks antecedance.

Claim 39 is a duplicate of parent claim 31.

In claim 40 line 15 "said to generate is vauge. It appears a term has been omitted.

In claim 41 lines 3-4 "said generated authentication siganls" lacks antecedance. In line 7 "said first location identifier" lacks antecedance. In line 9 "said randomly

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generated number "lacks antecedance. In lines 13-14 "said enciphered value" lacks antecedance.

In claim 50 line 2 "said decophering algorithm" lacks antecedance. In lines 3-4 "said second signal processing circuit" lacks antecedance.

In claim 53 lines 3-4 "said second signal processing circuit" lacks antecedance. In claim 54 line 2 and 5-6 "said second communication controller circuit" lacks antecedance. In lines 3-4 "said deciphering algorithm" lacks antecedance. In lines 4-5 "said second signal processing circuit" lacks antecedance.

In claims 56 and 57 line 2 "said deciphering algorithm" lacks antecedance. In lines 3-4 of both claims "said second signal processing circuit" lacks antecedance.

In claim 58 line 4 "said location" and "said second location" both lack antecedance. In line 13 "at said to generate" is vague. It appears a term has been omitted. In lines 15-16 "said second communication controller circuit" lacks antecedance.

In claim 59 line 3-4 "said generated authentication signals" lacks antecedance. In line 4 "said location" lacks antecedance. In lines 4-5 "said authenticating instructions" lacks antecedance. In line 7 "said location identifier" lacks antecedance. In line 9 "said randomly generated number" lacks antecedance. In lines 13-14 "said enciphered value" lacks antecedance.

In claim 60 the last to lines "said second signal processing circuit" lacks antecedance.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the

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applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-3, 5, 7, 21-26, 32,43-46 and 49 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ashby, et al.

Ashby teaches a method for privately communicating over a wireless communications network (column 1, lines 10-11), comprising the steps of: processing (104) the communication signals in a first signal processing circuit within a first communications controller circuit (Fig 4) at a first location to produce processed communication signals; enciphering (22) the processed communication signals in the first signal processing circuit at the first location to produce enciphered and processed communication signals; transmitting (12) the enciphered and processed communication signals between a first location and a second location using the first communications controller circuit at the first location; receiving (12) the enciphered and processed communication signals at the second location using a second communications controller circuit (Fig 5); deciphering (22) the enciphered and processed communication signals in a second signal processing circuit within the second communications controller circuit at the second location; and processing (110) the deciphered and processed communication signals in the second signal processing circuit to produce communications signals at the second location.

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Ashby teaches embedding an enciphering algorithm within the first processing circuit (22) and enciphering using the embedded algorithm.

Ashby teaches embedding a deciphering algorithm within the second signal processing circuit (22) and deciphering using the embedded algorithm.

Ashby teaches enciphering in a dedicated signal processing unit (22).

Ashby teaches embedding a DES enciphering algorithm (22).

Ashby teaches using a transceiver to transmit and receive. (column 7, lines 5-7)

Ashby teaches processing digitally (104, 110)

5. Claims 1-3, 5, 7, 21-26, 32, 43-46 and 49 are rejected under 35 U.S.C. § 102(e) as being anticipated by Crowley, et al.

Crowley teaches a method for privately communicating over a wireless communications network (column 1, lines 46-50), comprising the steps of: processing (35) the communication signals in a first signal processing circuit within a first communications controller circuit (Fig 2) at a first location to produce processed communication signals; enciphering (43) the processed communication signals in the first signal processing circuit at the first location to produce enciphered and processed communication signals; transmitting (column 4, lines 53-54) the enciphered and processed communication signals between a first location and a second location using the first communications controller circuit at the first location; receiving (column 4, line 55) the enciphered and processed communication signals at the second location using a second communications controller circuit; deciphering (45)

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the enciphered and processed communication signals in a second signal processing circuit within the second communications controller circuit at the second location; and processing (37) the deciphered and processed communication signals in the second signal processing circuit to produce communications signals at the second location.

Crowley teaches embedding an enciphering algorithm within the first processing circuit (column 3, lines 30-33) and enciphering using the embedded algorithm.

Crowley teaches embedding a deciphering algorithm within the second signal processing circuit (column 3, lines 30-33) and deciphering using the embedded algorithm.

Crowley teaches enciphering in a dedicated signal processing unit (column 3, lines 30-33).

Crowley teaches embedding a DES enciphering algorithm (column 1, lines 60-62)).

Crowley teaches using a transceiver to transmit and receive. (column 4, line 40)

Crowley teaches processing digitally (column 3, line 10)

6. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention

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was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

7. Claims 6, 8, 9, 28, 30, 31, 34, 36-39, 48, 50, 52, 53, 55-57 are rejected under 35 U.S.C. § 103 as being unpatentable over Crowley, et al, in view of the applicant's admission of page 10, lines 12-25 of the present specification.

The difference between the claims and Crowley are the use of F, BONUS or DECT algorithms.

Crowley uses a "standard encryption technique". Applicant lists F, BONUS, DES as "existing enciphering algorithms". It would have been obvious, in the Crowley system, to use any existing enciphering algorithm to suit the security, efficiency or legal requirements necessitated by the system's use.

2. Claims 4, 10-11, 18, 47, and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 14-15, 17, 27, 29, 33 and 42 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

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The claims are allowed because no prior art could be found which would render obvious, in a private communication method or system: embedding the enciphering or deciphering algorithm in the first signal processing circuit after manufacturing the first communications controller circuit; programmably selecting an enciphering algorithm; generating a location identifier, receiving a random number and employing a privacy function on the random number and location identifier to generate an enciphered value; XORing the enciphered and processed communication signals with clear processed communication signals.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner David Cain whose telephone number is (703) 305-1836. The examiner can normally be reached on Monday-Friday from 6:30AM - 3:00PM EDT. The fax number for Group 2200 is (703) 308-7382.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarzca, can be reached at (703) 306-4171

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 306-4177.

David Cain

**DAVID C. CAIN
PRIMARY EXAMINER
GROUP 2200**